The Effect of Telenursing-Based Five-Finger Hypnosis Therapy on Maternal Stress Among Mothers of Stunted Children: A Quasi-Experimental Study

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Abstract

Stunting remains a major public health problem in developing countries, including Indonesia. In addition to nutritional factors, maternal psychological stress may indirectly affect caregiving quality and child well-being. Objective: This study aimed to examine the effect of telenursing-based five-finger hypnosis therapy on maternal stress levels among mothers of children with stunting. A quasi-experimental non-randomized controlled study with a pretest-posttest design was conducted from March to May 2024 in Wanaraja Village, Garut Regency, Indonesia. A total of 34 mothers of children with stunting were recruited using purposive sampling and allocated to an intervention group (n = 17) and a control group (n = 17). The intervention group received telenursing-based five-finger hypnosis therapy for seven sessions over four weeks, while the control group received routine care from the community health centers. Maternal stress was measured using a 14-item maternal stress scale adapted from the stress domain of the DASS-42 questionnaire. Data were analyzed using Jamovi statistical software version 2.6.45, with the Friedman test for within-group comparisons and the Mann-Whitney U test for between-group comparisons. Maternal stress in the intervention group decreased progressively from pretest to posttest 1 and posttest 2. The mean maternal stress score in the intervention group decreased from 18.4 (SD = 3.12) at baseline to 16.4 (SD = 2.50) at week 2 and 14.5 (SD = 2.40) at week 4. In the control group, the mean score decreased slightly from 18.9 (SD = 2.29) at baseline to 17.9 (SD = 2.77) at week 2 and 17.6 (SD = 2.50) at week 4. The reduction in maternal stress was significantly greater in the intervention group than in the control group at week 2 ($p = 0.036$) and week 4 ($p < 0.001$). These findings suggest that telenursing-based five-finger hypnosis therapy may be a supportive psychosocial nursing intervention for reducing maternal stress among mothers of children with stunting. Further studies with larger samples and randomized designs are needed to confirm these findings

Keywords: Stunting, Maternal Stress, Five-Finger Hypnosis, Telenursing, Community Health Nursing

INTRODUCTION

Stunting remains a persistent public health challenge that affects child growth and development globally (Mulyani et al., 2025; Soliman et al., 2024). The World Health Organization reported that stunting affects millions of children worldwide, particularly in low- and middle-income countries (WHO, 2025). In Indonesia, the prevalence of stunting remains above the WHO threshold, indicating ongoing public health concerns. Stunting prevention has been prioritized through multisectoral strategies involving nutrition-specific and nutrition-sensitive interventions (Kemenkes, 2025; WHO, 2026).

In addition to nutritional inadequacy and infectious diseases, indirect determinants, such as maternal caregiving practices and psychological well-being, play a crucial role in child

growth outcomes (Muzzamil et al., 2025; Rana et al., 2024). Mothers of children with stunting frequently experience psychological stress due to caregiving burden, social stigma, economic constraints, and limited social support (Febristi et al., 2023; Saripah, 2022). Persistent maternal stress may increase the risk of depression and anxiety, reduce emotional regulation, which in turn may compromise the quality of nurturing care provided at home (O'Dea et al., 2023; Wang et al., 2024; Pan et al., 2025; Ren et al., 2025). In community health centers, nurses are strategically positioned to provide psychosocial interventions. Nevertheless, the delivery of psychosocial support is often constrained by a high workload, limited time, geographical barriers, and uneven access to in-person counseling, especially in rural areas **(Kenwright et al., 2024; Rafi et al., 2026).**

Various non-pharmacological interventions have been developed to manage stress in nursing practice, including relaxation techniques (Toussaint et al., 2021). One such intervention is five-finger hypnosis therapy, which combines tactile stimulation with positive imagery to induce relaxation (Valentine et al., 2019). Previous studies have demonstrated that five-finger hypnosis effectively reduces stress and anxiety among caregivers (Hansen et al., 2022; Wati et al., 2021). Hypnosis-based and relaxation interventions have demonstrated effectiveness in reducing stress and anxiety across various populations, including caregivers, and may enhance coping and self-efficacy (Cardoso et al., 2025; Padilla et al., 2026).

Digital health and telehealth innovations have expanded rapidly in recent years and have been recommended as feasible strategies for strengthening primary health care systems through improved continuity of care, remote monitoring, and health education (Forslund et al., 2024; Sriati et al., 2024). Telenursing offers a promising approach to expanding access to nursing care by using telecommunications to deliver education, monitoring, and supportive interventions. Telenursing enables the provision of education, counseling, and psychosocial support without geographical barriers (Emalia & Nilasari, 2021; Nishigaki et al., 2025).

However, empirical evidence regarding the use of nurse-led five-finger hypnosis delivered through tele-health specifically for mothers of children with stunting within community health center programs remains limited. This evidence gap is relevant to nursing practice in community health centers, as psychosocial interventions may help strengthen caregiver capacity and complement nutrition-focused stunting programs (Yehuda et al., 2024). Therefore, this study aimed to examine the effect of tele-health-based five-finger hypnosis therapy on maternal stress levels among mothers of children with stunting. The

findings may provide preliminary evidence to inform caregiver psychosocial support in community-based stunting services.

METHODS

This study employed a quasi-experimental pretest-posttest control group design. It was conducted from March to May 2024 in Wanaraja Village, Garut Regency, West Java, Indonesia. A total of 34 mothers of children with stunted growth were recruited using purposive sampling; 17 participants were allocated to the intervention group and 17 to the control group. As this was a preliminary quasi-experimental study, the sample size was intended to provide initial evidence regarding the potential effect of the intervention in a real community-based primary healthcare setting. This number was considered sufficient to explore the direction and magnitude of change in maternal stress before conducting larger randomized studies. The reporting of this study was guided by the Transparent Reporting of Evaluations with Nonrandomized Designs (TREND) statement.

Group allocation was determined based on participant eligibility within the service area of the community-based primary healthcare setting, as random assignment was not applied in this study. All eligible participants first underwent a baseline assessment of maternal stress before being assigned to either the intervention or control group. Because participants were not randomly assigned, potential selection bias could not be completely ruled out and should be considered when interpreting the findings. To reduce this potential bias, the same inclusion and exclusion criteria were applied to both groups. The inclusion criteria were as follows: (1) mothers with mild-to-moderate stress levels, defined as a total score of 15–25 25 on the Maternal Stress Scale adapted from the DASS-42 stress domain; (2) mothers of stunted children aged 0–23 months; (3) mothers who were the primary caregivers; (4) mothers who owned a smartphone and were able to use WhatsApp Messenger; and (5) children diagnosed with stunting within the previous six months. The exclusion criteria were as follows: (1) refusal to participate, (2) communication barriers, and (3) ongoing psychological or other stress-related therapy. Participants who missed at least two intervention sessions or withdrew during the study were excluded from the final analysis.

A total of 34 participants were enrolled in the study, comprising 17 mothers in the intervention group and 17 mothers in the control group. No participants withdrew or were excluded during the study period. All participants were included in the final analysis. In the intervention group, adherence to the intervention was monitored across seven scheduled sessions, and all participants met the predefined attendance criteria.

The five-finger hypnosis technique used in this study was adapted from previous nursing studies on stress management and relaxation (Wati et al., 2021; Safitri & Tresya, 2023). The intervention was standardized using a written Standard Operating Procedure (SOP) for telenursing-based stress management and a five-finger hypnosis protocol. The intervention was delivered by the researcher with support from two trained research assistants. To ensure intervention fidelity, all sessions followed the same SOP, intervention materials, sequence of activities, and session duration. Standardized session checklists were used to document the delivery of each session and to ensure that all planned intervention components were implemented consistently across participants and sessions.

The intervention consisted of seven structured sessions delivered over four weeks through a WhatsApp Messenger group and video conferencing. Each session lasted approximately 10–15 min, and most sessions were conducted twice weekly. Outcome assessments were conducted separately and were not counted as intervention sessions. Maternal stress was assessed at baseline before the first intervention session. The intervention included stress education, coping-related discussions, participant sharing, evaluation activities, and five-finger hypnosis practice. During the hypnosis practice, participants were guided to associate positive memories and calming experiences with sequential finger-touch cues. Participants were also encouraged to practice the technique independently between sessions to strengthen the relaxation effect. Participants in the control group did not receive the structured intervention program. Instead, they received routine care for stunting management at the community-based primary healthcare setting and did not receive the five-finger hypnosis intervention. A detailed description of the intervention protocol, including the content and activities of each session, is presented in Table 1.

Table 1. Protocol of Telenursing-Based Five-Finger Hypnosis Intervention

Session	Main Content	Activities	Duration
1	Introduction and stress education	Introduction, explanation of program objectives, discussion of maternal stress related to caring for children with stunting	10–15 min
2	Understanding stress and stressors	Identification of stressors, discussion of participants' experiences, and coping needs assessment	10–15 min
3	Coping strategies for stress management	Education regarding adaptive coping techniques and emotional regulation	10–15 min
4	Participant sharing and evaluation	Sharing experiences, peer support, discussion of coping implementation, and mid-intervention evaluation	10–15 min
5	Reinforcement of stress management skills	Review of stress management materials, preparation for five-finger hypnosis practice	10–15 min

Session	Main Content	Activities	Duration
6	Five-finger hypnosis implementation	Guided practice of the five-finger hypnosis technique through video conference	10–15 min
7	Five-finger hypnosis reinforcement and evaluation	Repeated hypnosis practice, participant feedback, evaluation of intervention outcomes, and encouragement of independent practice	10–15 min

Maternal stress was assessed at baseline (pretest), week 2, and week 4 using the modified maternal stress questionnaire. Data were collected remotely through an online questionnaire form distributed via WhatsApp Messenger. Completed questionnaires were collected and reviewed by the researcher with assistance from two trained research assistants. To reduce contamination bias, the intervention and control groups were managed separately, and the control group did not receive five-finger hypnosis therapy during the study period. Maternal stress was measured using a 14-item Maternal Stress Scale adapted from the stress domain of the DASS-42 questionnaire. The instrument was modified to fit the context of mothers caring for children with stunting. The modification process involved selecting the 14 items from the stress domain of the DASS-42 and revising the wording of several items to make them more relevant to maternal stress experiences related to caring for a child with stunting. After modification, the questionnaire was pilot-tested among 30 mothers of children with stunting in Wanasari Village before being used in the main study. A different village was intentionally selected for the pilot test to prevent participant overlap and to minimize potential contamination or testing effects that could influence the main study results in Wanaraja Village.

The validation procedure included item validity testing using item-total correlation analysis. An item was considered valid when the item-total correlation coefficient met or exceeded the r-table value of 0.361. The item-total correlation coefficients ranged from 0.361 to 0.730, indicating that all 14 items met the validity criterion. Reliability was assessed using Cronbach's alpha, and the modified questionnaire showed good internal consistency reliability, with a Cronbach's alpha value of 0.841. Each item was scored on a 4-point scale ranging from 0 (never) to 3 (very often), with higher total scores indicating higher levels of stress. Total scores were categorized as normal (0–14), mild (15–18), moderate (19–25), severe (26–33), and extremely severe (≥34).

Data were analyzed using Jamovi version 2.6.45. Descriptive statistics included frequencies, percentages, means, and standard deviations. Baseline equivalence between the intervention and control groups was assessed before evaluating the intervention effect. Before evaluating the effect of the intervention, baseline equivalence between the intervention and control groups was assessed. Baseline maternal stress scores were compared using the Mann–Whitney U test, while categorical demographic characteristics, such as age group and

education, were compared using Fisher's exact test because of the small sample size. The normality of the data was tested using the Shapiro–Wilk test, as each group consisted of 17 participants.

The results showed that the maternal stress score was not normally distributed. Therefore, non-parametric tests were used for inferential analysis. Changes in maternal stress scores across the three measurement points within each group were analyzed using the Friedman test. When the Friedman test showed a significant result, pairwise post-hoc comparisons were performed using the Wilcoxon signed-rank test. The comparisons were conducted between the pre-test and week 2, the pre-test and week 4, and week 2 and week 4. A Bonferroni correction was applied to adjust for multiple comparisons, with an adjusted significance level of $p < 0.0167$. Between-group differences in change scores, including post-test 1 minus pre-test and post-test 2 minus pre-test, were analyzed using the Mann–Whitney U test. The effect size for the between-group comparison was estimated using rank-biserial correlation. Statistical significance was set at $p < 0.05$.

Ethical approval was obtained from the Ethics Committee of STIKes Karsa Husada Garut (No. 001188/KEP STIKes Karsa Husada Garut/2024). Written informed consent was obtained from all participants, and all procedures were conducted in accordance with the Helsinki Declaration.

RESULTS

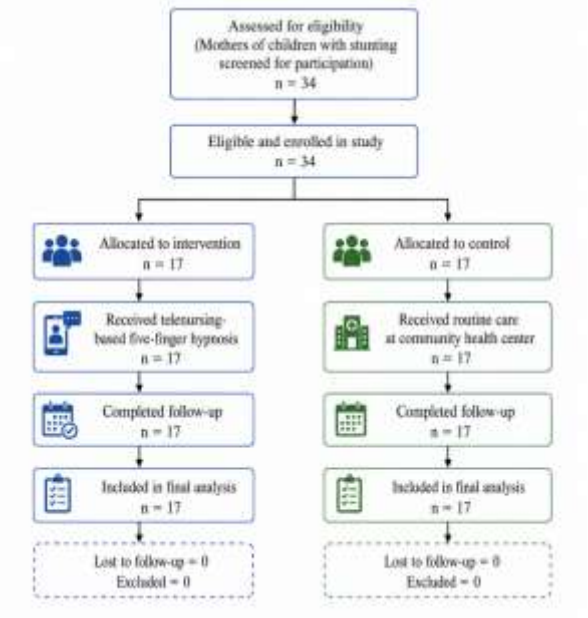

Figure 1. Participant Flow Diagram

A total of 34 participants completed the study and were included in the final analysis. No participants withdrew or were excluded during the study period. In the

intervention group, adherence to the intervention was monitored across seven scheduled sessions, and all participants met the predefined attendance criteria.

Characteristics of Respondents

Table 2 presents the characteristics of the respondents in the intervention and control groups. The age distributions were similar in both groups, with most respondents aged 31–45 years. Regarding education, most respondents in both groups had a senior high school education, with a higher proportion observed in the intervention group than in the control group. Baseline equivalence testing showed no statistically significant differences between the intervention and control groups in age group, education, and baseline maternal stress scores. As shown in Table 2, there were no significant differences in age group ($p = 1.000$), education ($p = 0.438$), or baseline maternal stress scores ($p = 0.313$). These findings indicate that the two groups were relatively comparable before the intervention.

Table 2. Characteristics of respondents

Characteristics	Intervention (n=17)	Control (n=17)	*p-value*
Age, n (%)			1.000
20 – 30 years	8 (47.1%)	8 (47.1%)	
31 – 45 years	9 (52.9%)	9 (52.9%)	
Education, n (%)			0.438
Junior high school (SMP)	3 (17.6%)	6 (35.3%)	
Senior high school (SMA)	14 (82.4%)	11 (64.7%)	

Note: p-values were obtained using Fisher's exact test for categorical variables

Baseline Maternal Stress Scores Between Groups

As shown in Table 3, the baseline maternal stress score was slightly lower in the intervention group than in the control group, with mean scores of 18.4 (SD = 3.12) and 18.9 (SD = 2.29), respectively. However, the Mann–Whitney U test showed that this difference was not statistically significant ($p = 0.313$). This indicates that the intervention and control groups had comparable maternal stress levels before the intervention was delivered.

Table 3. Comparison of Baseline Maternal Stress Scores Between Groups

Characteristics	Intervention (n=17)	Control (n=17)	*p-value*
Baseline maternal stress score, mean (SD)	18.4 (3.12)	18.9 (2.29)	0.313

Note: p-value was obtained using the Mann–Whitney U test.

Stress levels in the intervention and control groups

Table 4 presents the distribution of maternal stress categories in the intervention and control groups across measurement points. At baseline, most mothers in both groups were classified as having mild or moderate stress, with no participants in the normal category. In the intervention group, the proportion of mothers categorized as normal increased from 0.0% at

pretest to 23.5% at posttest 1 (week 2) and 64.7% at posttest 2 (week 4), while the proportion with moderate stress decreased from 41.2% at baseline to 29.4% at posttest 1 (week 2) and 0.0% at posttest 2 (week 4). In contrast, the distribution of stress categories in the control group remained unchanged across all three measurement points, with 52.9% of mothers categorized as having mild stress and 47.1% as having moderate stress.

Additional categorical analysis showed that the proportion of participants who improved by at least one stress category was higher in the intervention group than in the control group. At week 2, 6 of 17 mothers in the intervention group showed categorical improvement, whereas no mothers in the control group improved (Fisher's exact test, $p = 0.018$). At week 4, all 17 mothers in the intervention group showed categorical improvement, whereas no categorical improvement was observed in the control group (Fisher's exact test, $p < 0.001$). These findings indicate that the intervention was associated not only with lower mean stress scores but also with a clinically relevant shift toward lower stress categories among mothers of children with stunting.

Table 4. Distribution of stress in the groups

Measurement	Normal, n (%)	Mild, n (%)	Moderate, n (%)
Intervention group			
Pretest	0 (0.0%)	10 (58.8%)	7 (41.2%)
Posttest (week 2)	4 (23.5%)	8 (47.1%)	5 (29.4%)
Posttest (week 4)	11 (64.7%)	6 (35.3%)	0 (0.0%)
Control group			
Pretest	0 (0.0%)	9 (52.9%)	8 (47.1%)
Posttest 1 (week 2)	0 (0.0%)	9 (52.9%)	8 (47.1%)
Posttest 2 (week 4)	0 (0.0%)	9 (52.9%)	8 (47.1%)

Changes in mean stress scores

Post-hoc pairwise comparisons were then performed using the Wilcoxon signed-rank test with Bonferroni correction, with an adjusted significance level of $p < 0.0167$. In the intervention group, significant reductions in maternal stress scores were found across all pairwise comparisons. This indicates a continuous decrease in maternal stress from baseline to week 2 and from week 2 to week 4. In the control group, significant reductions were found when each post-test score was compared with the baseline score. However, no significant difference was found between week 2 and week 4, suggesting that the improvement did not continue after week 2. Overall, the intervention group showed a greater reduction in maternal stress scores than the control group, particularly at week 4. This finding was supported by the between-group comparison of change scores, which showed a moderate effect at week 2 and a large effect at week 4. Although the control group also showed statistically significant changes

over time, the reduction was smaller and was not accompanied by a shift to a lower stress category. Detailed results of the post-hoc Wilcoxon signed-rank tests are presented in Table 5.

Table 5. Post-hoc Pairwise Comparisons of Maternal Stress Scores Using the Wilcoxon Signed-Rank Test with Bonferroni Correction

Group	Comparison	Test statistic	p-value	Bonferroni-adjusted Significance (α = 0.0167)
Intervention	Pretest vs Week 2	$p < 0.001$	<0.001	Significant
	Pretest vs Week 4	$p < 0.001$	<0.001	Significant
	Week 2 vs Week 4	$p < 0.001$	<0.001	Significant
Control	Pretest vs Week 2	$W = 81.0$	0.012	Significant
	Pretest vs Week 4	$W = 124.0$	0.003	Significant
	Week 2 vs Week 4	$W = 10.0$	0.095	Not Significant

Table 6 shows the changes in mean maternal stress scores at three measurement points in both groups. In the intervention group, the mean stress score decreased progressively from 18.4 (SD = 3.12) at pre-test to 16.4 (SD = 2.50) at post-test 1, or week 2, and 14.5 (SD 2.40) at post-test 2 or week 4. In the control group, the mean stress score also decreased, but the reduction was smaller. The mean score declined from 18.9 (SD = 2.29) at pre-test to 17.9 (SD = 2.77) at week 2 and 17.6 (SD = 2.50) at week 4. The Friedman test showed significant changes over time in maternal stress scores over time in both groups (p < 0.001).

Table 6. Stress score in the groups

Group	Pretest Mean (SD)	Posttest 1 Mean (SD)	Posttest 2 Mean (SD)	Friedman X^2	*p-value*
Intervention	18.4 (3.12)	16.4 (2.50)	14.5 (2.40)	33.0	<0.001
Control	18.9 (2.29)	17.9 (2.77)	17.6 (2.50)	20.4	<0.001

Note: p-values were obtained from the Friedman test.

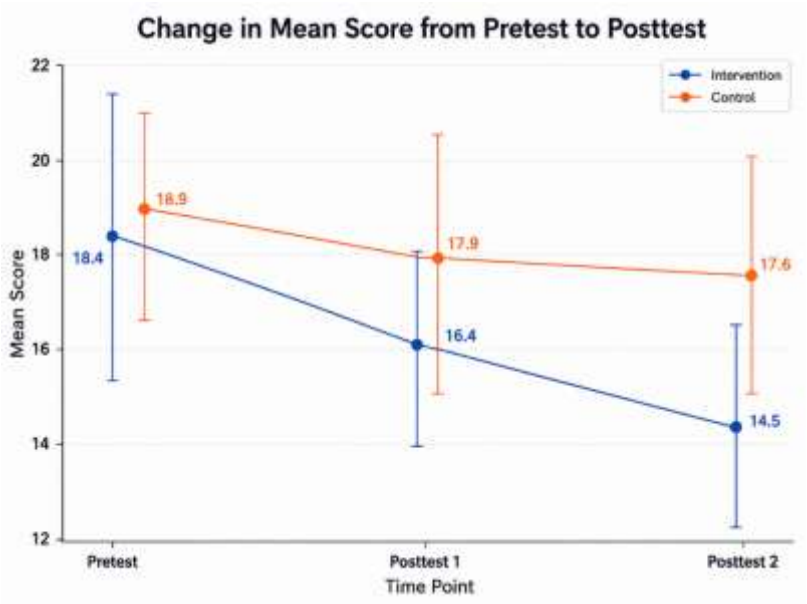

Figure 2. Changes in Mean Maternal Stress Scores Across Measurement Points

Figure 2 illustrates the changes in mean maternal stress scores in the intervention and control groups across the three measurement points. The intervention group showed a progressive decrease in mean stress scores from pretest to week 2 and week 4, whereas the control group showed only a slight reduction over the same period. Specifically, the mean stress score in the intervention group decreased from 18.4 at pretest to 16.4 at week 2 and further to 14.5 at week 4. In comparison, the control group showed a smaller decline, from 18.9 at pretest to 17.9 at week 2 and 17.6 at week 4. This visual trend supports the finding that maternal stress reduction was greater in the intervention group than in the control group.

Table 5 presents the between-group differences in changes in maternal stress scores from baseline to week 2 and week 4. The intervention group showed greater reductions in maternal stress scores than the control group at both time points. For posttest 1–pretest, the between-group difference was significant (Mann–Whitney U = 86.0, $p = 0.036$) with a moderate effect size (rank biserial correlation = − 0.405). For posttest 2–pretest, the difference was also significant (Mann–Whitney U = 18.0, $p < 0.001$) with a large effect size (rank biserial correlation = − 0.875). Within the study sample, these findings suggest the potential effectiveness of telenursing-based five-finger hypnosis therapy in reducing maternal stress compared with routine care alone, with a larger between-group difference observed after four weeks of intervention.

Table 5. Between-Group Differences in Changes in Maternal Stress Scores

Change Score	Intervention Mean (SD)	Control Mean (SD)	Mean Difference (I–C)	Mann-Whitney U	*p-value*	Effect Size	Interpretation
Posttest 1 – Pretest (week 2)	-1.94 (1.25)	-0.94 (1.09)	-1.00	86.0	0.036	-0.405	Moderate
Posttest 2 – Pretest (week 4)	-3.88 (1.36)	-1.29 (1.21)	-2.59	18.0	<0.001	-0.875	Large

Note: Negative values indicate greater reductions in maternal stress scores in the intervention group. The effect size was estimated using rank biserial correlation

DISCUSSION

This study found that telenursing-based five-finger hypnosis therapy was associated with greater reductions in maternal stress levels among mothers of stunted children. Stress scores in the intervention group decreased progressively from baseline to week 2 and week 4. Although participants in the control group did not receive five-finger hypnosis therapy, they continued to receive routine community health services, and their slight improvement may also be explained by natural adaptation, repeated assessment, and external support from family or

community health workers. Previous studies have shown that maternal stress and caregiving burden are influenced by psychosocial and environmental factors, including social support and caregiving context. (Booth et al., 2018). However, the reduction in the control group was smaller than that in the intervention group and was not accompanied by categorical improvement. This suggests that telenursing-based five-finger hypnosis therapy may have provided additional psychosocial support beyond routine care.

These findings indicate that a structured, brief psychosocial intervention delivered remotely by nurses may provide measurable benefits for caregiver well-being in community stunting contexts. These findings are consistent with previous studies reporting the effectiveness of five-finger hypnosis in reducing stress and anxiety (Safitri & Tresya, 2023; Wati et al., 2021). The present study extends this evidence by applying five-finger hypnosis through a telenursing approach among mothers of children with stunting in a community-based community health center setting. This context is important because maternal stress may affect caregiving quality, while access to regular in-person psychosocial support in community settings can be limited. Therefore, the novelty of this study lies in integrating a brief five-finger hypnosis intervention with telenursing delivery to support maternal stress management in community-based stunting care.

Hypnosis may reduce stress through two interconnected pathways: physiological regulation and psychological modulation (Valentine et al., 2019). Physiologically, hypnosis may reduce psychophysiological arousal by modulating the autonomic nervous system activity, as reflected in changes in heart rate, heart rate variability, electrodermal activity, and respiratory rate, thereby promoting a more relaxed state (Batra et al., 2024). Psychologically, hypnosis may help focus attention, reduce reactivity to stressors, and enhance emotional self-regulation, enabling mothers to better manage anxiety, tension, and feelings of being overwhelmed (De Benedittis, 2024; Leo et al., 2024). Recent evidence shows that hypnosis remains a relevant psychological intervention, with generally positive effects on mental disorders, including outcomes related to stress and anxiety (Rosendahl et al., 2024). Five-finger hypnosis may be particularly suitable for community nursing because of its simplicity, short duration, and minimal resource requirements. The technique also promotes self-efficacy because mothers can practice the cues independently between sessions, potentially reinforcing sustained stress management. The stress reduction observed in this study may be explained by the physiological relaxation response induced by hypnosis-based techniques, which promote parasympathetic activation and emotional regulation (De Benedittis, 2024; Fernandez et al.,

2021). By integrating this intervention into a telenursing framework, accessibility may be improved, particularly in community and rural settings.

Maternal stress may negatively influence caregiving behaviors, including feeding consistency, emotional responsiveness, and engagement in stimulating activities, which can indirectly contribute to poor growth trajectories. Therefore, interventions that strengthen maternal coping and emotional regulation are increasingly recognized as complementary components of stunting prevention and rehabilitation programs (Almaatani et al., 2023; Pan et al., 2025). Importantly, the delivery of five-finger hypnosis through telenursing may help address one of the common barriers in primary healthcare, namely, limited opportunities for frequent in-person psychosocial support. Digital health and telehealth have been increasingly recommended as approaches to strengthen primary healthcare systems, improve continuity of care, and expand access to interventions for populations facing geographic or logistical constraints (Sriati et al., 2024; WHO, 2021). In Indonesian community health center settings, where nurses often manage high caseloads across multiple programs, telenursing may have potential as an additional strategy to support caregiver psychosocial well-being (Adrian et al., 2021). However, the present study did not directly assess implementation outcomes, such as feasibility, acceptability, fidelity, or cost-effectiveness. Therefore, these findings should be interpreted as preliminary evidence of effectiveness rather than evidence supporting routine large-scale implementation.

From a nursing management perspective, the findings suggest that nurse-led telenursing-based stress management may be a supportive component of community stunting programs. Nevertheless, this implication remains preliminary, as the present study focused on maternal stress outcomes and did not evaluate implementation processes or service-level outcomes. Further research is needed to assess the feasibility of delivery within routine community health centers, the acceptability of the intervention among mothers and nurses, the fidelity of implementation, resource requirements, and the cost-effectiveness. Such evidence is important to determine whether this intervention can be appropriately incorporated into family-centered community nursing care.

Limitations

This study has several limitations. First, the non-randomized quasi-experimental design may have introduced selection bias, as participants were not randomly assigned to the intervention and control groups. Although the same inclusion and exclusion criteria were applied to both groups, potential baseline differences or unmeasured confounding factors could not be completely ruled out; therefore, causal interpretation should be made cautiously. Second,

the relatively small sample size and use of self-report measures may limit the generalizability and objectivity of the findings. Third, the study did not assess longer-term outcomes; therefore, the sustainability of the intervention effect remains unclear. Fourth, implementation-related outcomes, such as feasibility, acceptability, fidelity, resource requirements, and cost-effectiveness, were not evaluated, which limits conclusions regarding the scalability and routine integration of the intervention into community health centers. Therefore, future research should employ randomized controlled designs with larger samples, longer follow-up periods, and broader outcome measures, including caregiving practices and child growth indicators, while also examining implementation aspects before wider adoption can be recommended.

CONCLUSION

The findings showed that mothers of children with stunting who received telenursing-based five-finger hypnosis therapy experienced a greater reduction in maternal stress than mothers of children with stunting who received routine care. The reduction in stress scores was observed progressively from baseline to week 2 and week 4, indicating that the intervention may contribute to improving maternal psychological well-being during community-based stunting care. From a practical perspective, this nurse-delivered, telenursing-based five-finger hypnosis therapy may be considered a supportive psychosocial nursing intervention may offer a brief and accessible psychosocial strategy to support maternal stress management as a complement to routine stunting management services. However, given the quasi-experimental design, small sample size, and limited implementation-related evaluation, further studies with larger samples, randomized designs, and longer follow-up periods, and assessments of feasibility, acceptability, fidelity, resource requirements, and cost-effectiveness are needed before wider implementation in community health center settings can be recommended to confirm these findings.

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